

After forming the SMI Group in 1987 to manufacture secondary packaging machines, the four Nava brothers never thought that more than three decades later the business would be one of the global market leaders, and covering the entire production line.

In 2003, the Italian business added blow moulding machines to its portfolio, which evolved into palletisers, fillers and conveyor belts. This has now led to it becoming a specialist in the design, manufacture and installation of complete bottling lines and packaging systems for soft and carbonated beverages as well as liquid products in PET containers, with outputs from 3,600 to 33,600 bottles per hour.

Big brands in the food & beverage sector are among its most important customers, including the likes of Nestlé, Danone, Unilever, Coca-Cola, PepsiCo, Diageo, Heinz, Heineken, SABMiller, AB-Inbev and Carlsberg.

At its headquarters in the north Italian town of San Giovanni Bianco, marketing manager Pietro Volpi explained how SMI now installs an average of 13 turnkey projects every year worldwide: “As well as this, we still manufacture around 300 single machines each year, with this varying depending on the market environment and trends.

“As of the end of the second quarter this year, we have delivered 517 blow moulding machines and ecobloc systems, 5,809 automatic packers, 110 automatic palletisers and 50 complete bottling lines since our formation. Business continues to improve with our sales revenue at €146 million (\$169m) in 2017.”

Increasing global demand has been kind to SMI, which exports more than 95 per cent of its production: “The Middle East and Africa are massive growing markets for us.

“For example, countries such as Nigeria, Algria, UAE and Qatar, where a lot of investment is coming from oil, is being put into infrastructure, roads, etc. This means an emerging middle class and more demand for food and drink as people head to urban areas and the cities become more developed.”

One example is the recent installation of a full PET line at the Mai Dubai LLC Factory in Dubai, UAE, which now has the ability to produce 12,000 50cl bottles of water every hour: “This was a true turnkey project that SMI was involved in from the very beginning, starting with the plant design and the design and installation of a new bottling and packaging centre for water sold under the name of ‘Mai Dubai’,” said Volpi.

The integrated system includes an Ecobloc 6-24-6 which blows, fills and caps the bottles, shrinkwrappers, an APS 3050 palletiser as well as conveyor belts.

Innovation never stops



The SMI Group has grown into a global turnkey project provider. **Paul Hill** went to northern Italy to find out how



SMI was chosen to take part in launching of the new alkaline water produced at the Mai Dubai LLC factory in Dubai. Below: The Ecobloc K Ergon is claimed to be the most compact rotary combi on the market



“This solution integrates the three operations of blowing, filling and capping into a single block, which means a considerable advantage to economy and maintenance,” says Volpi. “It is also an eco-sustainable solution with reduced energy costs, thanks to numerous innovative technologies; for example, the preform heating unit is assembled with highly-effective energy-saving infra-red lamps, while the pull-blowing unit has a system that retrieves air which

allows a reduction in energy costs tied to the production of high-pressure compressed air.”

Volpi described how the filling technology uses efficient valves controlled by flowmeters; ensuring precise and fast processes thanks to electronic controls.

However, SMI doesn't just focus on drumming up new business. It also has a loyal customer base, which keeps returning when looking to upgrade its plants. One such is Ali-

mentos Maravilla in Guatemala. Since first doing business with SMI in 1998, it now has a total of five automatic packaging machines in its facilities. These machines, among which is the latest LSK 40F Ergon, are able to pack bottles in PP, cardboard cartons and cans in various pack formats at up to 40-45 per minute.

The Central American business produces a wide variety of products, including a range of brands for food and drinks, meaning it always needs flexible secondary packaging machines: "Recently we provided a new LSK 40F Ergon shrink wrapper to them with a rate of at 40 packs per minute."

Machinery

The business is consistently extending its EBS K Ergon range, with the stretch-blow moulder now available in 2-, 3- and 4-cavity versions. This enables users to benefit from the advantages of the rotary technology in a speed range from 1,000 to 9,000 bottles per hour, traditionally served by linear stretch-blow moulders.

The firm claims that the Ecobloc K Ergon is the most compact rotary combi in the world and results from a project characterised by the use of technologically advanced solutions inspired by Industry 4.0.



Alimentos Maravilla in Guatemala has been installing SMI machinery since 1998



SMI moved to its new headquarters at San Giovanni Bianco in 2014

Said to offer all the advantages of rotary technology, it is suitable for bottling lines for milk and still water (EV models) and edible oil (EM models). Meanwhile, in the Ecobloc version, which is combined with a filling and capping module, it is said to offer the advantage of reduced costs for manufacturing, filling and capping containers since the configuration does not require the rinsers and conveyor belts between the stretch-blow moulder and the filler.

Furthermore, thanks to the electronic control system of the operations and the use of high-efficiency valves controlled by flow meters, the process is said to be more precise, and faster.

Another recent innovation from the group has been its EASY-CAP gravitational cap gripper, which takes the caps from the hopper, orients them and then transfers to the bottling line. The system features integration in a single structure of three different devices, each one devoted to a specific function: the motorised hopper for the loading of loose caps, the elevated conveyor for the handling of caps from a loading to an unloading height and the outfeed cap discharger linked to the cap channel.

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